

What is claimed is:

1. An integrated bevel cleaning (IBC) apparatus,  
5 comprising:  
    a transfer position where a substrate is positioned  
    for processing and where a substrate is positioned after  
    processing;  
    a rinse position where the substrate is rinsed; and  
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    an etch position where the substrate edge bead is  
    removed; and  
    an actuator for positioning the substrate in the  
    transfer position, the rinse position and the etch  
15 position.
2. The IBC apparatus of claim 1 further comprising a  
    substrate centering hoop for supporting the substrate in  
    the transfer position.
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3. The IBC apparatus of claim 2 further comprising a  
    substrate centering hoop rinsing nozzle.
4. The IBC of claim 1 further comprising at least one  
25 rinsing nozzle located proximate said rinsing position for  
    rinsing at least an edge region of the substrate.
5. The IBC of claim 4 wherein said at least one rinsing  
    nozzle is a plurality of nozzles positioned to rinse both  
30 sides of the substrate.
6. The IBC of claim 1 wherein said transfer position is  
    accessible by at least one slit valve.

7. The IBC apparatus of claim 1 wherein said actuator comprises a spindle assembly for retaining a substrate and rotating the substrate, and a linear actuator for raising  
5 and lowering said spindle assembly.

8. The IBC apparatus of claim 7 wherein said spindle assembly comprises a vacuum chuck.

10 9. The IBC of claim 1 further comprising at least one etchant dispenser arm positioned proximate the etch position to apply etchant to the substrate.

10. The IBC apparatus of claim 9 wherein said etchant is  
15 applied to an edge exclusion zone of said substrate.

11. The IBC apparatus of claim 9 wherein said at least one etchant dispenser arm is rotatable into a position near the substrate and away from the substrate.

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12. The IBC apparatus of claim 11 wherein said at least one etchant dispenser arm is at least three etchant dispenser arms.

25 13. The IBC apparatus of claim 12 wherein said at least three etchant dispenser arms are coupled to a single motor for simultaneously rotating the at least three dispenser arms.

30 14. A method for etching electroplated material from a substrate within an integrated bevel cleaning (IBC) apparatus, comprising:

introducing the substrate into a transfer position  
within the IBC apparatus;

moving the substrate to a rinse position within the  
IBC apparatus;

5 rinsing the substrate in the rinse position within the  
IBC apparatus;

moving the substrate to an etch position within the  
IBC apparatus; and

etching material from the substrate in the etch  
10 position within the IBC apparatus.

15. The method of claim 14 wherein the substrate is  
rotated while in the rinse position and the etch position.

15 16. The method of claim 14 wherein the introducing step  
further comprises opening at least one of a plurality of  
slit valves.

17. The method of claim 14 wherein the step of etching  
20 comprises positioning at least one etchant dispenser arm  
proximate the substrate.

18. The method of claim 17 wherein the at least one  
etchant dispenser arm comprises three etchant dispenser  
25 arms that are coupled to a single motor that imparts  
rotation in all three etchant dispenser arm simultaneously.

19. A system for processing substrates comprising:  
a loading station having at least one first chamber;  
30 a process region having at least one second chamber;  
an integrated bevel cleaning (IBC) apparatus  
comprising a transfer position through which a substrate

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can be passed from said load station to said process region without processing being performed in said IBC apparatus.

20. The system of claim 19 wherein said at least one  
5 second chamber is an electroplating chamber.

21. The system of claim 19 wherein said load station comprises a first substrate handler and said second process region comprises a second substrate handler.

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22. The system of claim 19 wherein said IBC apparatus performs edge bead removal and substrate cleaning.

TECHNICAL FIELD